OUR planet

Volume 11 Number 2 2000

UNEP

The United Nations Environment Programme magazine for environmentally sustainable development

Focus on Your World competition results

THE ENVIRONMENT MILLENNIUM

- HM Queen Noor of Jordan — *The right to diversity*
- John Prescott — *Gain, not pain*
- Madeleine K. Albright — *Changing course*
- Cletus Avoka — *From summit to summit*
- Mark Malloch Brown — *Empowering the poor*
- Kjell Larsson — *Now for vigorous action*
- **Kofi A. Annan** — *Message to Malmö*
- **Global Ministerial Environment Forum** — *Malmö Declaration*

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See page 20

Contents

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This issue of *Our Planet* was made possible by the generosity of the Department of the Environment, Transport and the Regions of the United Kingdom.

3 **Editorial**
Klaus Töpfer, Executive Director, UNEP

5 **The right to diversity**
HM Queen Noor of Jordan

7 **Gain, not pain**
John Prescott

9 **Changing course**
Madeleine K. Albright

11 **From summit to summit**
Cletus Avoka

14 **Empowering the poor**
Mark Malloch Brown

17 **The environment millennium**
Kofi A. Annan

18 **Focus on Your World**
International Photographic Competition on the Environment

20 **A critical priority**
World Resources

21 **Flashing indicators**
Domingo Jiménez-Beltrán

23 **Sea changes**
Thilo Bode

25 **No wires attached**
Mark Hickey

27 **MALMÖ SPECIAL FEATURE**

Now for vigorous action
Kjell Larsson

Malmö Ministerial Declaration

32 **Young, impatient and soon to be in charge**

Our **Planet**

is available on the **INTERNET** at:
www.ourplanet.com
with an additional article by Alexander Peal, winner of the Goldman Environmental Prize for Africa, 2000.

Our Planet is published by the United Nations Environment Programme (UNEP).
P.O. Box 30552, Nairobi, Kenya.
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e-mail: geninfo@unep.org

ISSN No. 1020-47X

UNEP Publishing Director: UNEP Communications Director.
Environment Fund Director.
Editorial Director: Geoffrey Lean.

Printed in the UK by KPC Group, Ewhurst, Surrey.
Distributed by Earthscan Publications Limited.

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Editorial

KLAUS TÖPFER
United Nations Under-Secretary General and Executive Director, UNEP

There has never been a paucity of ideas on enhancing and strengthening the role of the United Nations, especially since the end of the Cold War which brought renewed optimism that the United Nations could at last begin to realize its potential.

But all the ideas in the world amount to nothing unless there is political support for them in capitals around the world. The United Nations' great strength is its near universal membership. Support for enhancing the role of the United Nations in Canberra or Washington, London, Paris and Tokyo is pointless unless there is backing for similar proposals coming from capitals in eastern Europe, in Africa, in the Arab world and Asia. There must be a broad consensus on the directions for change and a willingness to work to find a common basis for action.

Added significance

In this context, the convening by the United Nations General Assembly of the Millennium Summit to address the role of the United Nations in the 21st century takes on an added significance. The Secretary-General has provided his vision for change through his report entitled, *We the Peoples: the United Nations in the 21st Century*.

I am convinced that the Millennium Summit offers an opportunity similar to that which existed in San Francisco 55 years ago – a chance to establish a system of governance at the global level, founded on common values and aspirations, which offers humanity the chance of a more peaceful and sustainable future than the years that have just passed.

The report to the Millennium Summit states that 'the challenges lying ahead of us are clustered into three broad categories. Two are founding aims of the United Nations whose achievement eludes us still: freedom from want and freedom from fear. No one dreamed, when the Charter was written, that the third – leaving to successor generations an environmentally sustainable future – would emerge as one of the most daunting challenges of all.'

A crucial issue

The importance that the world attaches to this crucial issue of environmental protection and sustainable development was most clearly attested to by the presence of 131 ministers and heads of delegations at UNEP's inaugural Global Ministerial Environment Forum in Malmö, Sweden from 29 to 31 May 2000.

The Malmö Declaration – which was the principal output of this forum and is addressed to the Millennium Assembly – acknowledged that the central challenge is to work out how the global ambitions contained in the increasing number of international environmental agreements can be turned into concrete local action and implementation. The Malmö Declaration also underlined the need for mobilizing 'domestic and international resources, including development assistance, far beyond current levels' to ensure the success of this endeavour. The Declaration also emphasized the 'need for reinvigorated international cooperation based on common concerns and a spirit of international partnership and solidarity.'

The new economy

In our globalizing world, the agenda is set by economics. It is therefore essential that the macroeconomic policy-making, as also the practices of government and multilateral lending and credit institutions and export credit agencies, must continue to take the environmental dimension into account. The Malmö Declaration recognized the 'potential of the new economy to contribute to sustainable development' and emphasized that this potential should be further pursued, particularly in the areas of information technology, biology and biotechnology.

The private sector has emerged as a global actor that has a significant impact on environmental trends through its investment and technology decisions. A greater commitment by the private sector should be pursued to engender a new culture of environmental accountability through the application of the polluter-pays principle, environmental performance indicators and reporting, and the establishment of a precautionary approach in investment and technology decisions. This approach must be linked to the development of cleaner and more resource-efficient technologies for a life-cycle economy, and efforts to facilitate the transfer of environmentally sound technologies.

Over the past two decades, civil ▸

From the Focus on Your World competition – the UNEP Executive Director's Special Prize: Au Chin Ki *Seedling*.

society has emerged as a vibrant new social and economic sector of activity alongside the public sector and the private for-profit sector. New elements of civil society have emerged with unparalleled rapidity in nations throughout Latin America, Africa, Asia and the Middle East, and in eastern Europe.

In many respects the global civil society speaks for the world concerning sustainable development, freedom, peace, equality, solidarity and justice. This demand is centred on practical matters and issues: the fight against famine and hunger in the world; the improvement of women's conditions at work and home; preservation of the environment; reduction of poverty, social exclusion and intolerance with a view to eradicating the main causes of ethnic and interstate wars. The Malmö Declaration underlined the need to strengthen the engagement of civil society organizations through freedom of access to environmental information and broad participation in environmental decision-making.

The decadal review of the Earth Summit in 2002 will provide a unique opportunity to the global community to reinvigorate the spirit of Rio. The environment ministers who gathered at Malmö stated that the objective of this summit should not be to renegotiate Agenda 21, which remains valid, but to inject a new spirit of cooperation and urgency based on agreed actions in the common quest for sustainable development.

Addressing the challenges

According to the Malmö Declaration, 'the 2002 conference should aim at addressing the major challenges to sustainable development, and in particular the pervasive effects of the burden of poverty on a large proportion of the Earth's inhabitants, counterposed against excessive and wasteful consumption and inefficient resource use that perpetuate the vicious circle of environmental degradation and increasing poverty.' It must review the requirements for a greatly strengthened institutional structure for international environmental governance based on an assessment of future needs for an institutional architecture that has the capacity to effectively address wide-ranging environmental threats in a globalizing world.

This 'Millennium' issue of *Our Planet* presents a diverse tapestry of perspectives from our stakeholders on the global environmental priorities and challenges for the 21st century. The thought-provoking and stimulating articles from the American Secretary of State Madeleine Albright, and the British Deputy Prime Minister, John Prescott highlight some of the challenges ahead. To further sustainable development in the North and the South, we must work in partnership both to eradicate poverty and to achieve sustainable production and consumption patterns. That is the point of the process that was launched in Rio in 1992. Let us now rally round, in a shared determination to strengthen the process by giving it a fresh boost which will see it through the next millennium ■

The right **to diversity**

HM QUEEN NOOR OF JORDAN

describes how human survival depends on conserving the richness of life, and proposes measures to promote it

Diversity is our richest resource. As individuals, as families, as nations, we rejoice in our uniqueness. We celebrate our originality everywhere – in our professional endeavours, in our human relations, in our cultural identities. Yet we all abuse the most critical level of differentiation – our biodiversity. Every ecosystem, every species, every gene is unique and yet vital in its interaction with other elements for the well-being both of our planet and, ultimately, of humankind.

As we enter the new millennium, we are confronted by the enormous impact our forebears, our generation, younger generations and future generations have had and will have on our planet. We have the statistics and charts which demonstrate our irresponsible misuse of all we have mistakenly taken for granted. We can no longer afford simply to reflect on the insufficient advances being made to stem the mounting degradation. We must unite and act now to reverse it, to ensure that our legacy to future generations is a sustainable, healthy and harmonious planet. We must [illegible] the business community, the decision-makers and the general public more acutely aware of the unparalleled loss of our planet's productive capacity and of how each and every one of us has a role to play in repairing centuries of decline.

Biological diversity, or biodiversity, describes the sheer variety of life on Earth – plants, animals and micro-organisms and the ecosystems and ecological processes of which they are a part. We cannot yet fully grasp the enormity of the interrelations among all ecosystems, species and microscopic organisms, so vast and complex is their network. Some 1.4 million species have been scientifically described. But biologists believe there are at least 13 million, and maybe 50 million or more.

We are only dimly aware of the future effects of our actions, as we do not know the full consequences of losing a species or a habitat. That is why we, and all generations, must take greater responsibility for our actions. We must resist the temptation to exploit biodiversity resources for short-term gains at the risk of undermining their long-term value.

Vital contribution

Wild species and their genetic variation [illegible]ake contributions worth billions of dollars to agriculture, to medicine, to industry every year. Sponges from the Caribbean, for example, combat rejection of organ transplants. Plant-based medicines provide primary health care to some 75 per cent of the world's population, mostly in developing countries where commercial alternatives are unaffordable or unavailable. Nature-oriented tourism now represents 40 to 60 per cent of all international tourism.

Many of nature's products are consumed directly ▸

without ever passing through a market, and so have little or no monetary value in an increasingly market-driven and globalized economy. But many indigenous and local people rely on them for survival.

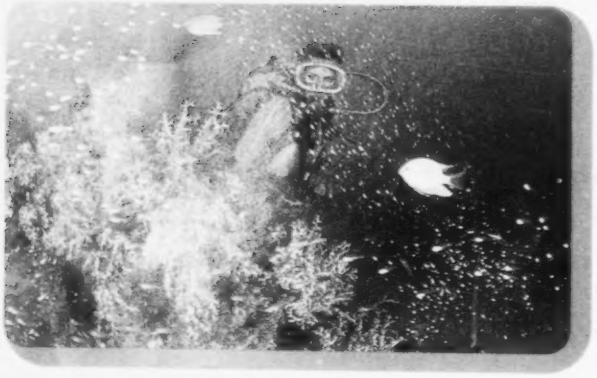
Indeed the survival of all humanity depends on biological diversity. While the value of each individual species isn't always apparent, collectively they provide the base for perpetuating life on Earth. Yet we are destroying biodiversity at an alarming rate. The pressure on species and ecosystems has never been greater. We all contribute to this every time we destroy the habitat of a species, every time we introduce an alien species, whether intentionally or not. We are responsible whenever we cause or permit pollution, climate change, deforestation or desertification. And the ever-increasing growth of human population – increasing from approximately 1 billion at the beginning of the 19th century to over 6 billion today – has led to massive overexploitation of our dwindling natural resources.

Accelerating extinctions

Estimates of the rate of loss vary, but ecologists agree that we will lose possibly half of all species on Earth within this century. Extinction, of course, happens naturally, but recent findings indicate that it is taking place at least ten times faster than previously believed. The depletion of the world's tropical forests provides one dramatic indicator of this. Home to 50 to 90 per cent of life's diversity, they are being destroyed at a rate of about 17 million hectares annually – an area four times the size of Switzerland.

The many reasons for destruction of biodiversity include desperate human need, ignorance, shortsightedness, greed – and often a combination of all of these. Poverty and environmental degradation are often interrelated. Lack of money drives many people – and countries – to exhaust their natural resources through deforestation, unsustainable fishing and agriculture, illegal mining or the wildlife trade: the list is endless. People are obliged to strip their resources bare to meet the demands of local and international markets. They are then forced to adopt short-term survival strategies to keep out a living; longer-term resource management becomes an unaffordable luxury.

Enormous scientific strides have led the way to more sophisticated technology, sounder conservation policies and legislation, and more widely adopted international conventions. But this technical approach is not enough.



David Doubilet/NAPA/Still Pictures

Humanity is part of nature and all parts of it – not just humankind – have an inherent right to exist

Conservation must begin in the minds and souls of people. Effective approaches must encompass measures based on both science and emotion, and channel the energy, knowledge, motivation, time and money of the millions of people around the world who care about nature towards conservation objectives.

Starting points

Our values are formed through our ethical and religious traditions and our schooling – and these, perhaps, present starting points for action. The ethical and religious values of biodiversity are rooted in the understanding that humanity is part of nature and that all parts of it – not just humankind – have an inherent right to exist. Future generations have a similar right to know and enjoy them and to choose to use them or not.

Our religious beliefs should have a critical impact on our attitude towards nature conservation. The perception of nature may vary from one faith to another but, ultimately, all religions unite in conserving biodiversity. They should enhance and expand precepts and initiatives to translate this into everyday action, by the faithful.

Education is also vital. Conserving biodiversity must be based both on preserving traditional knowledge and on modern understanding. These require basic schooling and capacity-building. How can we succeed while 20 per cent of the world's population is illiterate and more than 110 million children – almost all in developing countries and two-thirds of them girls – do not attend school? These children, when they grow up, will be ill-equipped to make crucial choices about resource consumption and reproduction. We must encourage schools and universities in every country to include awareness-building in their curricula and to promote programmes to help make humanity the guardian, rather than the predator, of biodiversity.

All people derive comfort and delight from the diversity of nature and the miracles of life. For millennia, its aesthetic value has been expressed through art, poetry, song, literature, music and dance. The privilege of admiring the miracle of life should be a perpetual right for future generations. It is our solemn duty to ensure that they, like us, can benefit from its bounty and enjoy its richness.

Our generation's opportunity and challenge is to transform our newfound awareness of the long-term dangers associated with the continued destruction of biodiversity into positive actions that allow us to both protect and to use our global life assets. If we fail, this third millennium may be the last ■

Her Majesty Queen Noor of Jordan is Patron of IUCN, The World Conservation Union, and RSCN, Royal Society for the Conservation of Nature in Jordan, a Member of the WWF International Board of Trustees and Honorary President of Birdlife International.

GAIN, **NOT PAIN**

JOHN PRESCOTT calls for urgent action to tackle climate change, and says that it would benefit everyone

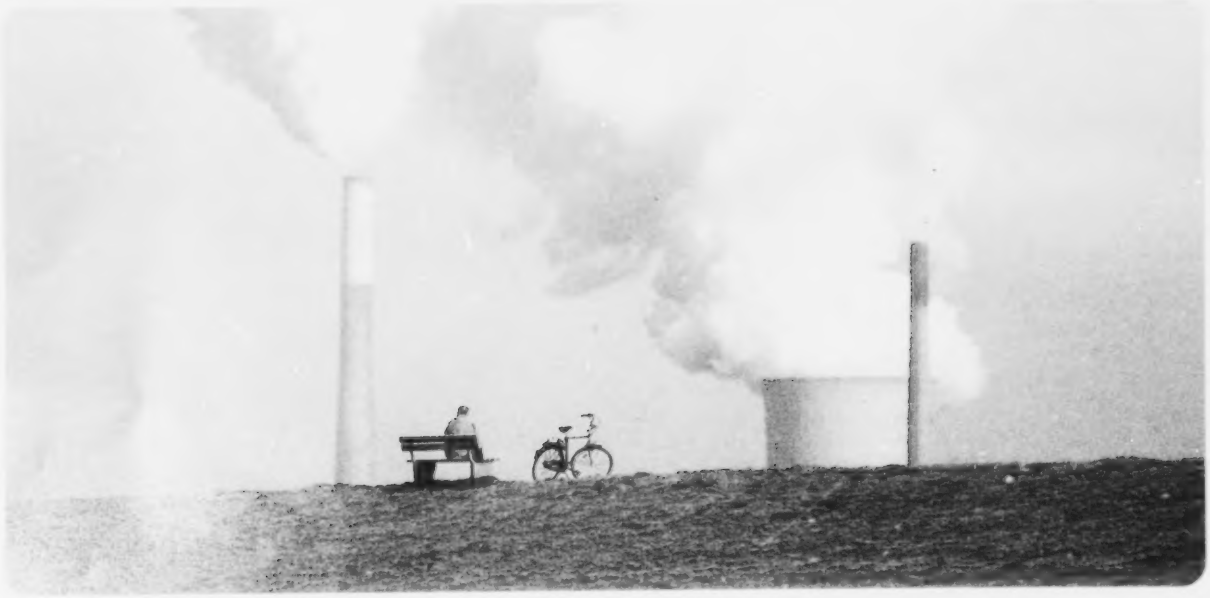
At the start of this new millennium, we have a real chance to tackle climate change and promote sustainable development.

Climate change is one of the greatest challenges facing the world today. I do not think there can be any doubt now that it is taking place and will have serious impacts on all of us.

It is a cruel irony that Millennium Island, the first place on Earth to greet the dawn of the new millennium, may be submerged by rising seas by the end of the century. But rising sea levels are only one of the many possible consequences of climate change. More intense storms, water shortages, flooding and freshwater inundation are also predicted. All of these have the potential to significantly disrupt lives, ecosystems and economies.

But action is being taken. The Rio Earth Summit in 1992 laid the foundations for a global change in attitude. It raised the threat of climate change to the top of the political agenda. For the first time, developed countries faced up to their responsibilities, and agreed to start reducing their greenhouse gas emissions. Successive negotiations followed, culminating in the Kyoto Protocol of 1997. This milestone agreement legally binds developed countries to emissions reduction targets to be achieved by 2008-2012.

We have already made a great deal of progress, but this does not mean we can become complacent. There is still much work to be done. The Sixth Conference of the Parties (COP 6) at The Hague in November will be vital. At COP 6 we will need to agree much of the detail left unresolved at Kyoto. This will mean compromise on all sides. ▶



But whatever the outcome at COP 6, I can give no guarantee that the United Kingdom will continue to take action to reduce its emissions. It is up to us in the developed world to demonstrate to developing countries that it is possible to reduce emissions without damaging economic growth.

That is why I recently launched the United Kingdom's Draft Climate Change Programme. The final Programme will be released before COP 6. We are putting in place an integrated set of policies and measures which we estimate could reduce our greenhouse gas emissions by 21.5 per cent by 2010, almost double our Kyoto target.

Win-win action

I strongly believe that this can be achieved through win-win action. For example, reducing emissions will also make industry in the United Kingdom more efficient, bring jobs and open new markets. We will all benefit from cleaner air, less traffic congestion and warmer homes. Tackling climate change can mean gain, not pain.

All sectors of society will need to play their part. We have set a target of 10 per cent of electricity to come from renewable sources by 2010. We will reduce transport emissions through promoting public transport and sending messages through vehicle and fuel taxes. And we are introducing two new measures focused specifically on business.

Reducing emissions will also make industry more efficient

The first is the Climate Change Levy – a tax on the business use of energy. This is not a stealth tax on business. The levy will be revenue-neutral with all the proceeds recycled back into business through lower welfare contributions and extra support for energy efficiency.

The second is a domestic emissions trading scheme. This will offer business a cost-effective and flexible way to achieve emissions reductions. We have been working closely with industry, and are optimistic that an emissions trading market will be up and running in the United Kingdom by spring 2001.

It is only by taking action now to reduce emissions that we will be able to move to the low-carbon economy of the future.

We in the developed world are largely responsible for the situation we are now in. We must take the lead in cleaning it up. But it is right that developing countries will also need to be part of the solution for the future. Dealing with climate change will require greater efforts by all countries.

And I recognize that many developing countries are already taking action to improve energy efficiency and limit the growth in their emissions. This is a welcome development and I encourage these countries to publicize their achievements.

But whatever action we take now, it is predicted that over the next decades the world will experience significant climate change due to past and current emissions.

This highlights the urgent need for all countries to start planning for the future impacts of climate change. The infrastructure we develop now needs to be able to cope with the conditions we expect to see in the coming decades – not just those we are currently experiencing.

Balancing priorities

This is not just an issue for governments. Business also needs to think about climate change in its long-term planning. The cost of ignoring it could be huge.

Climate change will affect us all – it is already affecting us. That is why achieving a successful outcome at COP 6 is so important. We must balance the often competing priorities of environmental credibility, equity and efficiency. It will require vision and leadership from all involved.

The process began at Rio, it came of age at Kyoto. The next staging post is The Hague. Let us make sure we do not squander the opportunity. Future generations will never forgive us if we do ■

The Rt. Hon. John Prescott MP is Deputy Prime Minister and Secretary of State for the Environment, Transport and the Regions of the United Kingdom.

Changing course

MADELEINE K. ALBRIGHT calls for unprecedented international cooperation to tackle the greatest challenge facing the Millennium Summit

As leaders from around the world gather for the historic Millennium Summit, they face no greater challenge than protecting the environment and promoting sustainable development. These goals are essential to global prosperity and security. For our citizens cannot thrive if the very air we breathe, the water we drink, the food we eat and the resources we rely upon are at risk.

But we are imposing extraordinary stresses on the global environment. Every year, we use more land, contaminate more water, consume more energy, emit more pollutants into the atmosphere and crowd more creatures into extinction. We are engaged in an ongoing experiment in which nature itself is being tested. And the safe limits are something about which we can only hazard an informed guess.

Meanwhile, the world's population has passed 6 billion human beings – many of whom live in dire poverty. More than 2 billion lack access to clean water; more than a billion subsist on less than $1 per day. And killer diseases such as HIV/AIDS and malaria plague entire continents.

Great strides

What are we doing to change course? The United States recognizes that we must do our part to protect the planet. We have made great strides in cleaning our air, land and water. Thirty years ago, the skylines of many United States cities were disappearing behind a veil of smog, and some of our rivers were so polluted they could literally burst into flames. In little more than a generation, we have reversed decades of damage. Tens of millions more Americans now have clean air and drinking water. Twice as many of our rivers and lakes are now safe for fishing and swimming. We have cut toxic emissions from factories by nearly half – and lead levels in our children's blood by 70 per cent.

We are also succeeding in reducing the rate of growth of our greenhouse gas emissions. In both of the last two years, our economy grew by more than 4 per cent while our carbon dioxide emissions grew by 1 per cent or less. So we know from experience that economic growth need not bring environmental degradation.

But it is clear that addressing such issues will require more than nations acting alone; it will require unprecedented levels of international cooperation. Polluted air and water flow easily across national boundaries, and will thus defeat the efforts of any nation that tries to isolate itself. Many other natural resource issues have the same transnational character. For instance, the range of many fish stocks is so wide that no single nation, acting alone, can properly conserve and manage them. And, of course, climate change and ozone depletion are concerns of truly global proportions, requiring cooperation on a global scale.

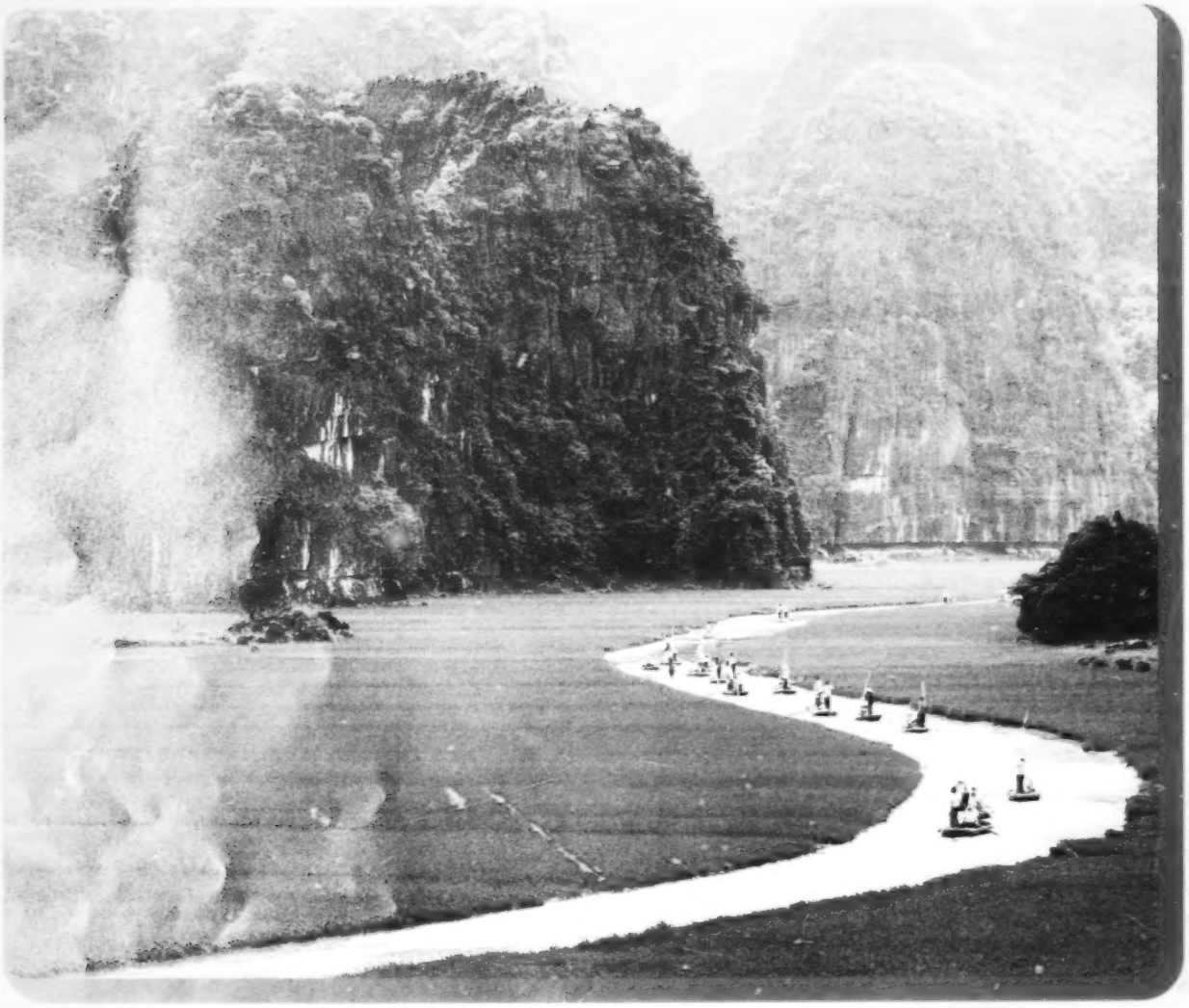
Each nation must take steps on its own to combat environmental threats, but we will not succeed unless we learn to coordinate our efforts. And as leaders, our challenge is to forge an international diplomatic response that reflects strong consensus goals which lead to positive and measurable results.

Our citizens cannot thrive if the very air we breathe, the water we drink, the food we eat and the resources we rely on are at risk

Meaningful participation

This is particularly true in the case of global warming. The scientific consensus is clear that the Earth's atmosphere is getting warmer. If we do not address the problem, the economic and ecological consequences will be enormous – drought in some areas, floods in others, rising sea levels, spreading disease. The United States has the world's largest economy and we are the single largest emitter of the gases that cause global climate change. So we have both the capacity and the obligation to lead. But we cannot solve this problem alone. Soon, 50 per cent of global emissions will come from developing countries. That is why we are seeking their meaningful participation.

We also want to ensure that all the world's people have access to clean water. We have seen the tensions that competition for water can generate, and the suffering that mismanagement and shortages can cause. Studies show that the squeeze on water resources will tighten as populations grow, demand increases, pollution continues and global ▸



Yaxi Thai Dang/AFP/Getty Images

climate change accelerates. As competition for water intensifies, further disagreements over access and use are likely to erupt. And unless properly managed, water scarcity can be a major source of strife, as well as a roadblock to economic and social progress.

Finally, we must remember that biological diversity is an irreplaceable shared resource and responsibility. For we are losing species at a rate unknown since the extinction of the dinosaurs. Scientists believe that in just the last few decades, human beings have triggered one of the greatest waves of extinction in planet Earth's 4-4.5 billion year history.

The leading threat to biodiversity is the destruction of tropical forests, which support half the world's known species. These forests help maintain a stable climate and are a vital source of medicines and new materials. Only half the tropical forests that stood in 1800 survive today. Another 20 hectares disappear every minute.

We can keep wasting water, pumping out carbon dioxide and destroying species. Or we can act now to protect the planet

Joining together

Our choice is clear. We can keep wasting water, pumping more carbon dioxide into the atmosphere, and causing species to disappear faster than scientists can catalogue them. Or we can act now to protect the planet.

The United Nations has a key role to play in helping the international community address these complex and pervasive challenges. I commend the call for United Nations renewal: it will be essential as we grapple with these issues in the new millennium. Let us vow to work with friends and allies around the world in managing our resources wisely. For only by joining together, strength to strength, will we save the Earth and serve our children ■

Madeleine K. Albright is United States Secretary of State.

From **summit** to **summit**

CLETUS AVOKA assesses the impact of the 1992 Earth Summit and sets out critical issues for its successor planned for 2002

By the time of the 1992 Earth Summit, the global community had realized that it was futile to try to achieve satisfactory development by conventional means. It recognized that development – basically defined in terms of economic and social factors – was harming the environment, and in many cases even having detrimental effects on society, particularly through damaged health.

Ghana, for example, calculated in 1988 that the cost of environmental damage resulting from her mode of development amounted to about 4 per cent of her GDP, even without taking account of the effect of environmental degradation on her people's health.

Developing countries were aware of the need to promote development to improve the social and economic well-being of their populations, but accepted that this had to take account of possible damage to the environment. So they saw in the Rio Earth Summit a process which would ensure – to use the Brundtland Commission definition – that their development "met the needs of the present generation without compromising the ability of future generations to meet their own needs".

The outcome of the Summit, as outlined in Agenda 21, was seen as promoting a global partnership for sustainable development. Developing countries believed that they would be helped to implement their own Agenda 21 programme by such critical initiatives as providing new and adequate financial resources, the transfer of environmentally sustainable technologies, fair trade and the involvement of all major groups of stakeholders.

Poverty continues to be a major problem in developing countries

Five years later the global community met at a special session of the United Nations General Assembly to review the implementation of Agenda 21. It realized that many of the commitments that had been made in Rio were not being met. This is still the situation, though there have been many assessments since – at the annual sessions of the Commission on Sustainable Development and Conferences of the Parties to the conventions agreed at the Summit.

Resources needed

The financial resources and environmentally sustainable technologies, which the developing countries need for their sustainable development programmes, are not being made available. Their governments are thus forced to use other resources and arrangements to meet their social and economic objectives and improve their people's quality of life, sometimes at the expense of the environment – even though they realize that this will have serious costs in the future.

Poverty continues to be a major problem in developing countries without the global community making much of an effort to address it seriously.

In many ways the countries of the North are failing to meet their other obligations under Agenda 21 and the Rio conventions. It has been difficult to get them to meet the emission levels they agreed in the Berlin Mandate of the Convention on Climate Change. The arrangements to implement the Clean Development Mechanism are yet to be finalized. And the United States has yet to ratify the Convention on Biological Diversity.

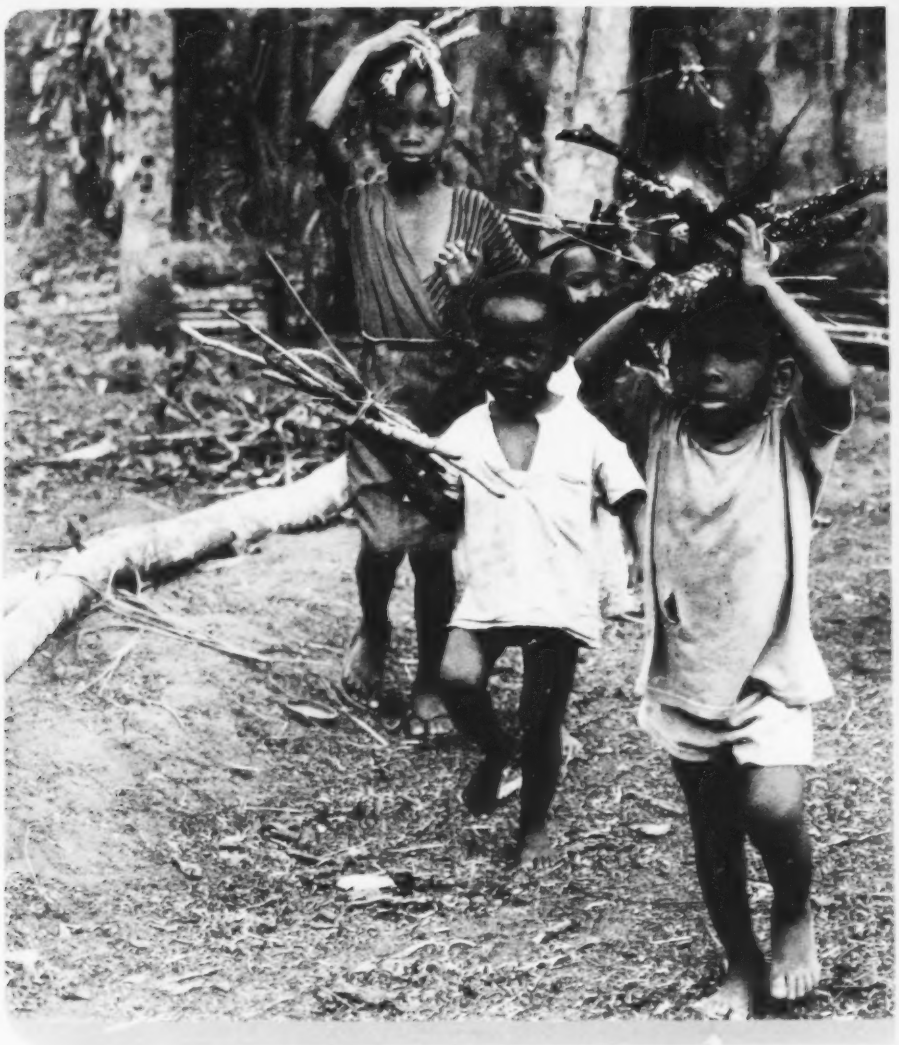
Despite their financial and other constraints, the developing countries have done better in implementing Agenda 21 and the Rio conventions than most countries from the North. Ghana, for example, has ratified the conventions and put in place institutional arrangements which ensure that the environment is taken into account in her development process. All investments in the country have ▸

Financial resources and sustainable technologies must be made available

to be subject to environmental impact assessment before they are allowed to proceed.

District assemblies, the lowest level of political administration in the country, have all prepared local Agenda 21s for implementation. Major groups are part of the country's decision-making process on sustainable development. We have also put in place arrangements which will ensure that our forests – which are being depleted at alarming rates to meet the needs of the population, especially in rural areas – are managed sustainably.

All this has been achieved at a substantial cost to the country. People have every reason to wonder why they should not use their resources however they think will improve their economic well-being. Why should they not cut down trees for development, the moment grows, while the government addresses the question of the environment? Some have no choice for survival, which they may not see. It is difficult, at times, to win the argument against such people because the financial and technical resources needed to solve their problems may not be readily available.



A critical look

The Earth Summit planned for 2002 gives the global community an opportunity to take another critical look at the implementation of all that was decided in Rio. Its success will largely depend on the process leading up to it. This must be very participatory, involving all stakeholders and countries. The process and way of conducting the Summit should go a long way to ensuring that countries are prepared to implement its outcome. It is important that it is focused so that concrete results can be achieved.

Attaining sustainable development cannot be looked at from the point of view of one region of the world or the other. It has to be considered as a global partnership. The developing countries hope that the following will be among the critical issues that the Earth Summit 2002 will address seriously.

1 Greater political commitment by all countries to the tenets of Agenda 21 and the other regional and global economic, environmental and social agreements.

2 Greater commitment by the countries of the North – expressed not only in words, but in action – to help developing countries meet the objectives of Agenda 21, the Rio conventions, and other global social and economic agreements.

3 The arrangements for implementing the Clean Development Mechanism should be finalized. Adequate resources should be made available, especially to African countries, to enable them to help the global community to meet the targets set out in the Kyoto Protocol to the Convention on Climate Change. We hope that all developed countries will ratify the Protocol by 2002.

4 The necessary resources should be provided to implement the Convention to Combat Desertification, which is critical for Africa.

5 Following the recent disaster in Mozambique, developing countries should be helped to prepare plans for addressing natural disasters, which can wipe out all the positive elements in a country's sustainable development programme in a single day.

6 There needs to be an integrated approach for handling the world's sustainable development agenda, which develops the appropriate synergies in implementing all the regional and global agreements in the field, including those dealing with human settlements, population, women, food security and the environment. This will

call for a critical assessment of the United Nations system's mechanism for addressing sustainable development. Developing countries should be given assistance to make it possible for them to do this at a national level.

7 All countries should be encouraged to prepare National Sustainable Development Strategies to address integrating economic, environmental and social issues into their development agendas. Local authorities should prepare their own Local Sustainable Development Strategies.

8 The global target of reducing poverty by half by the year 2015 should not just be a paper declaration, but be backed by action. The developing countries view reducing poverty as a very important element in their sustainable development programmes and expect the developed ones to assist them in their own efforts.

9 Developed countries should make publicly owned environmentally sound technologies available to developing countries for their own use. When these technologies are privately owned, favourable arrangements will need to be put in place to enable developing countries to take advantage of them.

10 New partnerships must be developed. The private sector, civil society and the various regional and sub-regional economic and development groupings should be critical partners in promoting sustainable development.

11 Developing countries, especially in Africa, are venturing towards making democracy an integral part of their governance. This is expensive and may take away some resources which could be used immediately to undertake socio-economic development. Donor partners should recognize this and assist with the resources needed to promote democracy.

12 The current global trade discussions do not promote fair trade for most developing countries. Subtle trade barriers make it difficult for them to compete equally with their developed partners. Some regulations affect their ability to trade in goods that are critically important for them. For instance, the European Union's recent decision to allow higher levels of vegetable fats other than cocoa butter in chocolate will hurt Ghana's cocoa industry and reduce her income from exporting cocoa, harming her economy.

13 Most developing countries are burdened with the servicing of their debts and find it difficult to meet their commitments to the global financial institutions, though they recognize their obligations. Developed countries may consider reducing the debt burden by cancelling some of these debts or having them rescheduled on favourable terms.

I believe that the current arrangements for managing the environment, through UNEP, are satisfactory. UNEP should continue to provide the sound scientific basis for decision-making in this area. Efforts, however, should continue to be made towards making it more effective in its operations, and I would like to recognize the current efforts of its Executive Director, Dr. Klaus Töpfer, in this regard.

We need to start the process to the Earth Summit 2002 now if we want to achieve any positive results. There is no need to rewrite Agenda 21. What is needed is greater political will and commitment from all of us to ensure that it is implemented ■

The Hon. Cletus V. Avoka MP is Minister for Environment, Science and Technology, Ghana.

Empowering THE POOR

Mark Malloch Brown

argues that environment protection and sustainable human development are essential to winning the war against poverty

Our planet's capacity to sustain us is eroding. This threat is global, but most severe in the developing world. The decline of major ecosystems has had an especially brutal impact on the poor, particularly poor women and children. Helping arrest and reverse environmental decline is one of the most important steps that could be taken to improve the lives of the 1.2 billion people who still live on less than $1 a day. If we fail to do so, the consequences will be devastating.

Consider the following:

Agricultural land – In developing countries, the pace of soil degradation has accelerated over the past 50 years and agricultural productivity is declining in many places, especially in Africa and Central America. Soil erosion has reduced global food production by 15 to 30 per cent.

Forests – Logging and conversion have shrunk the world's forests by as much as half, and tropical deforestation probably now exceeds 130,000 square kilometres per year, contributing to global warming, loss of biodiversity and reduced access to forest resources on which the poor depend.

Water – One-third of the world's people now live in countries where water is in short supply, and about one in every five people lacks access to safe drinking water. The increasingly urgent struggle in many regions of the world for access to shared water resources has the potential to escalate into military conflict, making development efforts in those regions that much more difficult.

Fisheries – The reduction of marine, coastal and freshwater natural fish stocks threatens many of the world's poor who depend on fish as their primary source of protein.

Energy – Two billion people lack access to basic energy services for cooking, heating and lighting, and remain largely dependent on fuelwood to meet their daily energy needs.

Climate change – Developing countries are likely to have the most difficult time responding to the consequences of global warming. Shifting agricultural zones and the rise of sea levels could have disastrous effects on many communities that have little capacity to cope with such changes (1).

Unfortunately, efforts by the international community to address these problems have so far been inadequate. The global response to both poverty and environmental decline has been too small, narrowly focused and uncoordinated given the scale of the challenges. Too often in the past, policies and programmes to reduce poverty and promote growth have been at the expense of the environment, while efforts to protect the environment have not always taken into account the interests of the poor. Ensuring environmental sustainability must become a critical development priority, and it must be an integral component of strategies aimed at reducing poverty.

Effective partnerships

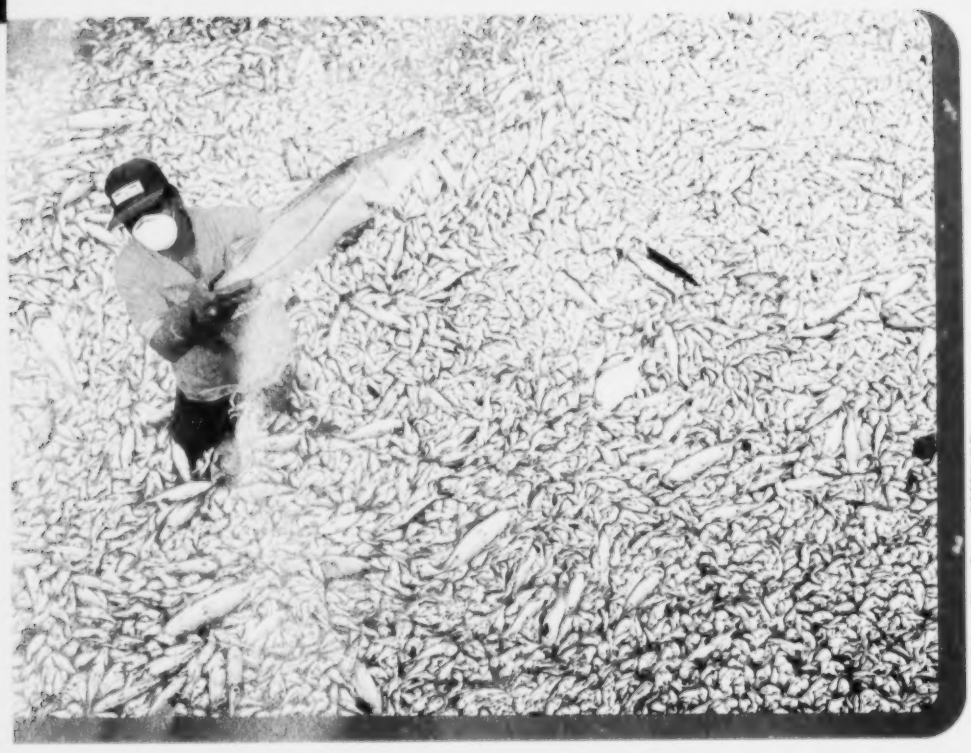
Discussions about the relationship between poverty and environment are often dominated by 'vicious circle' or 'downward spiral' metaphors – by the idea that population growth and inadequate resources will compel the poor to exhaust their natural resource base, leading to environmental degradation and thereby further entrenching poverty.

Work carried out under the joint UNDP-European Commission Poverty and Environment Initiative shows that this story, by itself, is incomplete and misleading. In many instances, the primary sources of land and resource misuse are the non-poor, commercial interests and the state. And while there are, to be sure, instances where poor people and their environment have become locked in a downward spiral, this situation is neither inevitable nor irreversible. Rather, experience has shown that it is often the direct result of failures in governance and policy.

In fact, a growing body of experience from around the world points to significant 'win-win' opportunities for reducing poverty while addressing urgent environmental concerns. What we now have to do is to help governments and civil society develop their capacity to pursue these opportunities systematically. And in particular, there is an urgent need for more effective partnerships with the poor, to empower them to implement their own solutions.

We know this approach can produce exciting results. For instance, the United Nations Development Programme's (UNDP) Promoting Farmer Innovation pilot programme in Kenya, the United Republic of Tanzania and Uganda has demonstrated the potential of local knowledge and creativity to improve both rural livelihoods and the environment. The programme's focus is on innovators – local farmers who are experimenting and developing better land husbandry techniques themselves. It starts by documenting local farmer innovations such as improved water harvesting, erosion control and agro-ecological farming practices. Visits between innovators are arranged, networks are developed to exchange ideas among them, and then other farmers are invited to observe and learn from 'best-bet' innovations.

The energy sector offers especially promising potential for sustainable development. Measures that promote renewable energy and increase the efficiency of energy use can be used as a tool simultaneously to reach multiple development objectives, including job creation and poverty reduction, while also protecting the environment and helping to mitigate climate change. For instance, experiments in China have shown that agricultural wastes can be transformed from a problem to a valuable resource to produce electricity, cooking gas and heat to foster rural development. Demonstration projects elsewhere show that photovoltaic ▸



technology can provide a clean energy source for many rural communities that currently have no access to electricity in any form.

Another promising example is the UNDP/Global Environment Facility Small Grants Programme. This global network provides decision-makers and practitioners alike with a unique resource for accessing knowledge and experience in community-level approaches to conserving biodiversity, mitigating global climate change and protecting international waters. Currently operating in 56 countries, the programme has supported a wide range of non-governmental organization and community activities that demonstrate 'win-win' approaches to addressing local environmental and livelihood needs while contributing to global environmental sustainability. Some examples include the sustainable use of non-timber forest products to promote alternative sources of income and employment among communities living in and around globally significant protected areas; the use of agricultural wastes in biogas production as an alternative to gathering fuelwood from forests; and integrated pest management to improve the sustainability of food production while reducing agricultural run-off and pollution of international waters.

Pivotal opportunities

The Millennium Summit, and the Rio+10 Earth Summit in 2002, are pivotal opportunities to launch a concerted global effort to move the poverty and environment agenda forward in a more coordinated and complementary manner. These opportunities should be used to forge an integrated agenda for sustaining human development behind which all sectors of the international community can rally.

Much of the groundwork has already been laid in the declarations and action plans from the major United Nations conferences of the last decade. The challenge now is to use the social, economic and environmental agendas of the global conferences to build a coherent framework for action, with clear goals and achievable targets backed-up by adequate resources and effective and transparent monitoring mechanisms. In this important process, the new UNDP stands ready and willing to help – for example, by building on the valuable experience of our Capacity 21 programme and its wider network of partners in helping countries to formulate and implement integrated strategies for sustainable development. As an agency dedicated to help address the needs of the poor through a combination of articulate advocacy and sound, sensible policy advice, we have two clear roles to play.

First, we must work to help keep these issues firmly on the global agenda. UNDP is starting to work towards helping develop an alternative vision of globalization that acknowledges the vast potential of open markets and new technologies for generating strong economic growth, but seeks to manage the process better to ensure it brings the poor into the mainstream of the global economy in an environmentally sustainable way. Second, we must leverage examples of 'win-win' outcomes by better understanding the key ingredients for success, and helping governments to translate these lessons into pro-poor, pro-environment policies and institutions that can catalyse much wider responses. By combining our own expertise with that of UNEP and our many other partners across the United Nations system, member states and civil society, we can and must help ensure that a global response to these environmental challenges is reinforced and supplemented with comprehensive grassroots action.

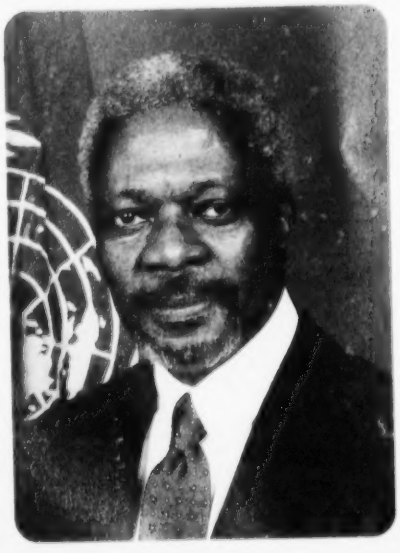
Above all, we must always keep in mind what is at stake: the health of our planet and its people is the most important legacy that we will leave for future generations ■

The health of our planet and its people is the most important legacy that we will leave for future generations

Mark Malloch Brown is the Administrator of UNDP.

1. World Resources Institute. 2000. *A Guide to World Resources 2000-2001. People and Ecosystems: The Fraying Web of Life*. UNDP, UNEP, World Bank and World Resources Institute. See review on page 20 of this issue.

The environment millennium



We may be at the dawn of a new millennium but the environmental problems we face are painfully familiar – they may even be getting worse.

Despite the Earth Summit and despite success stories like the Montreal Protocol to protect the ozone layer, human beings continue to plunder the global environment. Unsustainable practices remain deeply embedded in the fabric of our daily lives. We are failing to protect resources and ecosystems. We are failing to invest enough in alternative technologies, especially for energy. We are failing even to keep the debate alive.

These are deeply worrying trends. I recommend four priorities for reversing them.

First: *We need a major public education effort. Understanding of these challenges we face is alarmingly low. Corporations and consumers alike need to recognize that their choices can have significant consequences. Schools and civil society groups have a crucial role to play.*

Second: *Environmental issues must be fundamentally repositioned in the policy-making arena. The environment must become better integrated into mainstream economic policy and the surest way is through green accounting.*

Third: *Governments must not only create environmental agreements but must enforce them. They can for example cut the subsidies that sustain environmentally harmful activities each and every year. They can also devise more environment friendly incentives for markets to respond to.*

And Fourth: *We need sound scientific information. This is the only basis for effective policy yet large gaps in our knowledge remain. Technological breakthroughs, that are unimaginable today, may solve some of the environmental challenges we face. But it would be foolish to count on them and to continue with business as usual.*

The year 2000 begins the environment millennium. The time to act is now. There will be no easy solutions. Unpleasant ecological surprises lie ahead. But the start of the new century could not be more opportune to commit ourselves, people as well as government, to a new epoch of conservation and stewardship.

Kofi A. Annan
Secretary-General of the United Nations

From the Secretary-General's message to the Global Ministerial Environment Forum, Malmö, Sweden.

International PHOTOGRAPHIC COMPETITION on the ENVIRONMENT 1999-2000

Sponsored by

Canon

With the support of

United Nations Department of Public Information

Joint United Nations Information Committee

International Photographic Council

JAL Japan Airlines

National Geographic Society

Time Magazine

Television Trust for the Environment

Following two successful international photo competitions in 1991-1992 and 1994-1995, UNEP, generously supported by Canon Inc., invited photographers – professional and amateur, adults and young people – once again to show us the world as they saw it. The results were beautiful and horrific, charming and powerful.

From among the 16,690 entries from 160 countries, the judges selected just 124 entries as prize winners and winners of honorary mentions. All the photos in this issue of ***Our Planet*** are drawn from among these.

Based on the images submitted to the competition, UNEP, with the support of Canon Inc., is organizing a wide range of activities around the world to raise environmental awareness, starting with an exhibition and award ceremony in New York on 11 September 2000 and features in international magazines.

All the prize winners and honorary mentions can be viewed in the Focus on Your World Gallery on the One World website: **http://www.oneworldnet/media/gallery/unep/**

GOLD PRIZE (Adult Division):
Hartmut Schwarzbach *Floating Kids at Manila Bay*

GOLD PRIZE (Junior Division):
Miriam Koehler *Artificial Nature*

THE CANON SPECIAL PRIZE:
Luis Veiga *My Planet*

THE DIGITAL CAMERA SPECIAL PRIZE:
Claudio Bacinello *Companions in the Mist*

UNEP

THE INTERNATIONAL PHOTOGRAPHIC COUNCIL SCHOLARSHIP:
Wang Xun *Lovely Little Goose*

A CRITICAL PRIORITY

'For too long development priorities have focused on how much humanity can take from our ecosystems, and have paid little attention to the impact of our actions,' says Klaus Töpfer, Executive Director of UNEP, in the Foreword to *World Resources 2000-2001*. 'This report reconfirms UNEP's commitment, and that of the three other collaborating agencies, to making the viability of the world's ecosystems a critical development priority for the 21st century.'

World Resources 2000-2001 focuses on five critical ecosystems – croplands, forests, coastal zones, freshwater systems and grasslands – and advocates three steps for their sustainable management.

The first is to acknowledge the value of the goods and services they provide, and the report provides examples of such goods and services that occur naturally, but which have to be replicated or supplemented when an ecosystem's natural capacity declines. These include freshwater filtration by wetlands, pollination of crops and carbon sequestration in forests.

Then, the report suggests, management decisions should be based on current information about the capacity of ecosystems to remain productive. Such information has never before been collected comprehensively but to demonstrate the feasibility of a full-scale Millennium Assessment of Global Ecosystems, *World Resources 2000-2001* evaluates the statistical evidence now available to determine trends and conditions in the five ecosystems. It provides bottom-line judgements for each on food or fibre production, water quantity and quality, biodiversity, carbon sequestration and recreation.

'Our conclusion,' says Töpfer, 'is that while food and fibre production will probably continue to rise in line with demand, many of the other benefits provided by ecosystems will diminish unless we make strenuous efforts to manage our vital resources more effectively.'

The final step advocated by *World Resources 2000-2001* is the adoption of an 'ecosystem approach' that explicitly recognizes the interactions among these goods and services, as well as the political and social contexts in which environmental decisions are made. 'Through five detailed case studies and many additional examples,' concludes Klaus Töpfer, 'the report confirms that people all over the world have the capacity to improve the way they manage ecosystems.'

World Resources 2000-2001 also presents current global environmental trends in population, human well-being, food and water security, consumption and waste, energy use and climate change, together with comprehensive data on more than 150 countries ■

World Resources 2000-2001, *published jointly by UNEP, United Nations Development Programme, The World Bank and the World Resources Institute, is available from www.earthprint.com or SMI, PO Box 119, Stevenage, Hertfordshire SG1 4TP, UK (Fax +44 1438 74 88 44) at $27.00.*

The winner of the third *Our Planet* competition in Vol 10 No 5 (CITES) was Mve Peh Jean Herve from Gabon. Second prizes went to Roger Virraue from France, Fareed Hussain Mughal from Pakistan and Henry Neondo from Kenya; and runner-up prizes to Salimu Shabani Ngambeki from Uganda, Roberta Mendonca from Brazil and Katie Elizabeth Byrne from the United States.

Win a $150 basket of BODY SHOP products

Answer these three questions (you can find all the answers in this issue of *Our Planet*) and tell us in not more than 15 words what you believe is the most pressing environmental problem of our age.

1. In which Swedish city was the first Global Ministerial Environment Forum held in May 2000? _____

2. Of which organizations is HM Queen Noor of Jordan Patron? _____

3. How many entries were there to UNEP's International Photographic Competition on the Environment 1999-2000? _____

I believe the most pressing environmental issue that must be tackled is

_____

_____

_____

My name _____

Address _____

_____

First prize, $150 worth of **Body Shop products donated by The Body Shop.** Five runners up will each receive a copy of ***World Resources 2000-2001.***

Entries must be received by SMI, PO Box 119, Pin Green, Stevenage, Hertfordshire SG1 4TP, UK, or 2000@ourplanet.com no later than **5 December 2000.**

The winner and runners up will be chosen by a panel consisting of UNEP's Executive Director, its Director of Information, and the Editor of *Our Planet* from the entries received. The decision of the judges is final. This competition is closed to all those working for UNEP, Banson, KPC Group, SMI, The Body Shop, and all other companies and organizations associated with the production of *Our Planet* magazine and their families. A full set of rules is available on application from 2000@ourplanet.com

FREE COPY

Flashing indicators

DOMINGO JIMÉNEZ-BELTRÁN

describes the impact that the European Union countries have on the global environment, outlining the results of the first study of their use of materials to fuel their economies

The world's use of natural resources will have to be reduced if economic growth is to be brought in line with the Earth's carrying capacity. In other words, economic performance and requirements for natural resources must be separated, and efficiency in using resources must be increased.

So concluded the heads of state meeting of the European Union (EU) countries in Helsinki in December 1999. And in the same city, in July of that year, the EU's environment ministers agreed that, where appropriate, targets and timetables should be set for improving eco-efficiency, and that progress towards them should be monitored, using appropriate indicators.

If the worldwide extraction of resources is to be halved, industrial countries will need to increase the efficiency with which they use energy and materials by four to ten times over the next 30 to 50 years. This 'factor 4 to 10' goal was noted by the Organisation for Economic Co-operation and Development's environment ministers in 1996 and adopted by the special session of the United Nations General Assembly in 1997. In some EU Member States – like Austria and Finland – it has become part of political programmes. In others – like Germany, The Netherlands and Sweden – it has stimulated political debate. And in others still, it has been the subject of specific research.

Targets and timetables must be set for improving eco-efficiency

Meanwhile the United Nations has presented a core set of indicators for measuring changes in consumption and production patterns, with the total material requirement (TMR) representing a major driving force. This TMR indicator consists of the cumulative amount of primary materials, measured in tonnes, that are extracted from nature – both at home and abroad – for a country's economic activities. It indicates a generic pressure on the environment, similar to energy requirements and overconsumption of water. The level of resource extraction indicates in a general way the scale of local disturbances (such as the 'hidden flows' of mining wastes), the throughput of the economy, and amounts of emissions and wastes.

The first calculation of the indicator for the EU – published in the European Environment Agency's recent *Environmental Signals* report – shows that the total TMR for the 15 Member States increased slightly from 18.1 to 18.7 billion tonnes between 1995 and 1997. This works out at about 49 to 50 tonnes per capita, much less than for the United States of America (84 tonnes per capita in 1994) and not much higher than Japan (45 tonnes per capita), both of which have a higher GDP per capita than the EU states. By comparison, Poland's TMR had already reached 59 per cent of the EU level in 1995, while its GDP per capita was only 19 per cent of the EU level.

Per capita domestic 'hidden' flows showed the largest variations (13 to 18 tonnes per capita), reaching their highest level in 1991 with the inclusion of the former German Democratic Republic (GDR). This was due to the large quantities of lignite extracted to power the GDR's economy. ▸

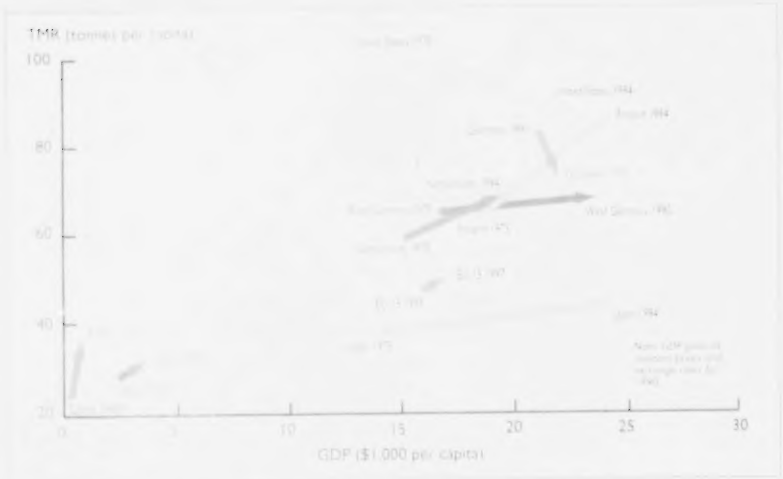


Figure 1: TMR and GDP of EU in comparison to some Member States and other countries, showing trends in both GDP growth and use of materials *Source: Wuppertal Institute*

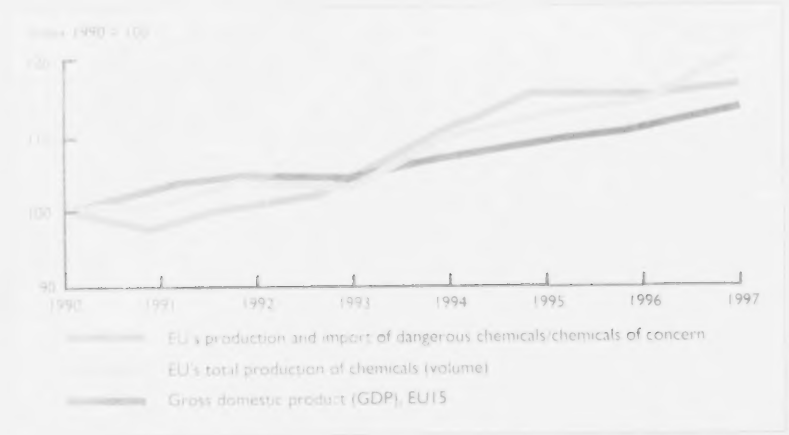


Figure 2: The dangerous chemicals intensity of EU GDP, 1990-97 *Source: EEA (1999)*

States, Finland, The Netherlands and Germany are all below the EU average (at 62, 80 and 87 per cent respectively). Elsewhere, Poland will have to increase its productivity by more than three times if it is to achieve the current EU average. But Japan's materials productivity was 1.5 times as high as the average for today's 15 EU countries in the mid-1990s.

Improving eco-efficiency

Can Member States successfully separate further economic growth from the use of natural resources? Targets will have to be set for improvements in eco-efficiency if this is to be achieved, as the heads of state indicated. And absolute reductions will be necessary where environmental burdens, such as emissions of carbon dioxide and acidifying gases, are already above carrying capacities. 'Sufficiency' as well as eco-efficiency will need to be an objective if sustainable development is to be achieved.

TMR provides only a very crude proxy for pollution, but the complexity and lack of data on toxics and their impacts on the environment is encouraging the search for indicators that can help focus attention on flows of materials – like persistent chemicals which accumulate in living things – that have potential for causing pollution and ill health.

The European Environment Agency's 'dangerous chemicals intensity of GDP' indicator is a first and tentative illustration of this approach (Figure 2). This proxy indicator is based on 802 high-production-volume chemicals that are either classified as dangerous by the EU or are of concern to maritime conventions and/or some Member States, and covers potential damage to both health and the environment. It is not weighted by toxicity or dispersion due to lack of sufficient information. It has been rising since 1993.

Much more work clearly needs to be done on pollution proxies such as TMR and dangerous chemicals intensity, in particular to capture the different potential for pollution posed by specific chemicals or materials. Meanwhile, by flagging up the rising pressure on the environment these indicators can help steer us towards improving well-being while using fewer natural resources ■

Domingo Jiménez-Beltrán is Executive Director, European Environment Agency.

SEA CHANGES

THILO BODE sounds the alarm on the state of the world's oceans and calls for urgent action

We all depend on the oceans, the planet's last great wilderness, for our very existence. They feed billions of people, regulate the weather, and control natural and atmospheric systems.

Most of the world's existing basic forms of life first appeared in the seas some 550 million years ago, and even now many new species probably live undiscovered in the ocean depths. In some ways life is even more diverse at sea than on land.

The immensity of the oceans once made them seem invulnerable: after all, they cover over 70 per cent of the Earth's surface, and have depths greater than the height of the world's tallest mountains. Yet overexploitation and careless, unregulated pollution place this astonishing environment in jeopardy. As a new century starts, there is an urgent need to change, learn from the indicators and halt the progressive destruction of a common asset.

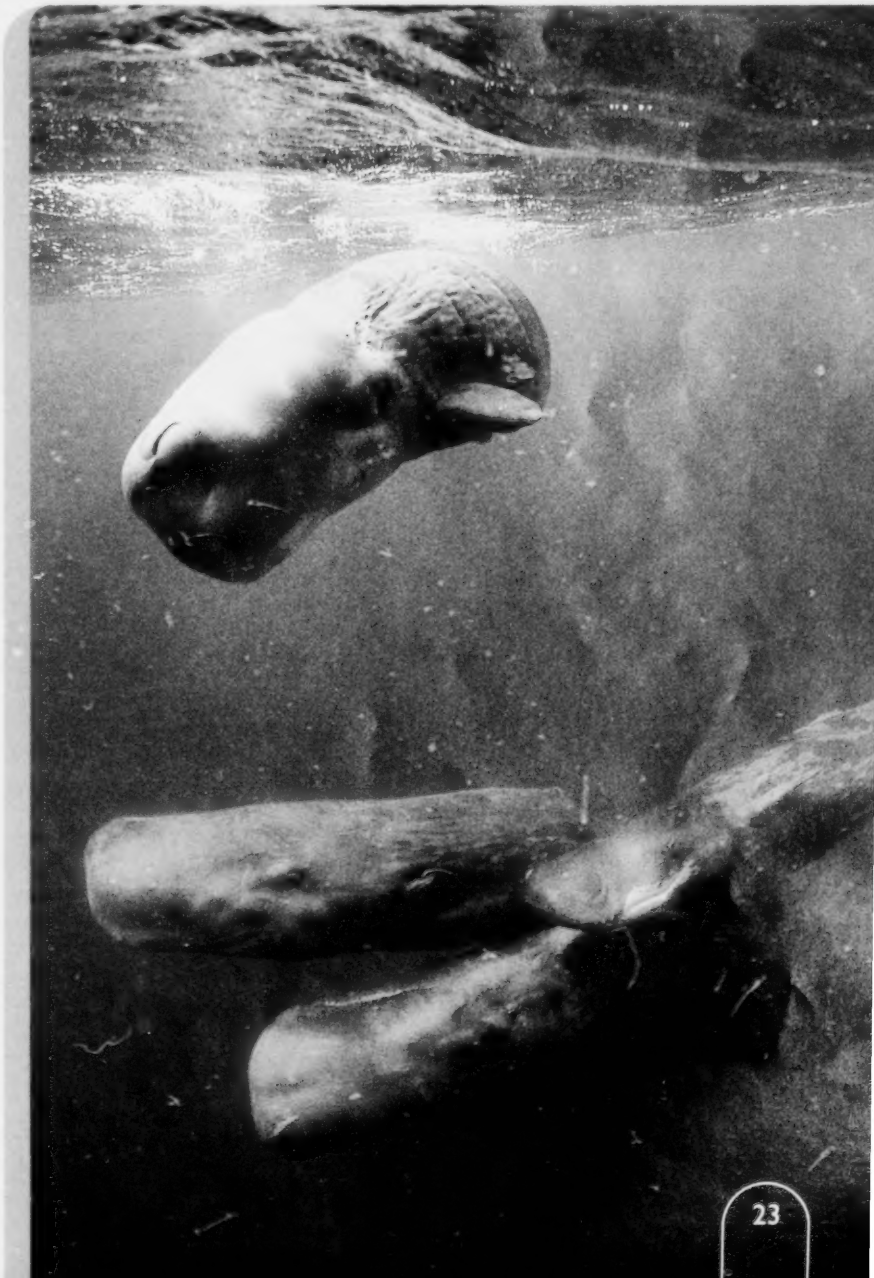
Of course, no clear 'line in the sand' divides the oceans from ecosystems on land. Tropical coastal mangroves provide important feeding and nursery grounds for fish and other species but face destruction to make way for tourism, urban development and shrimp aquaculture. Similarly, the rivers of the ancient forests of North America's Pacific coast provide the spawning habitat for salmon: yet the forests are being destroyed by clear-cut logging.

Human impact

Most of the world's people live near the coast and that is where human impact is most keenly felt. Over three-quarters of all the seas' pollutants come from human activities on land, or based there. Phosphates, nitrates, metals, radionuclides, organic chemicals and many other substances are discharged into the seas and are accumulating there and disturbing biological systems.

Toxic chemical effluent is pumped into the sea from outdated industrial processes, exported from industrialized nations to developing countries. Pesticides such as DDT are being increasingly used in agriculture and public health programmes in the developing world. Persistent organic pollutants do not just threaten human health and the environment where they are manufactured, but are carried by the oceans and the atmosphere to contaminate even remote polar regions: this can only be brought under control by a complete ban on producing and using organochlorines throughout the world. All these are just a few of the chemicals discharged to the marine environment: many cannot even be easily identified.

Global warming is likely to have a big impact at sea. The oceans play a central role in shaping the Earth's climate, absorbing carbon dioxide and other gases, and redistributing heat and water. Sea levels have risen by an estimated 10 to 25 centimetres over the last century, and as this continues the waters will cover land and coastal habitats in many countries. Bangladesh may lose 17.5 per cent of its land, and ▸



Douglas Seifert/ NHPStill Pictures

the Majuro Atoll in the Marshall Islands could lose 80 per cent. Already warmer waters and other effects of global warming are bleaching corals and having a severe effect on reefs.

Melting poles

Climate change is likely to be greatest at the poles. These regions play a fundamental role in ocean circulation patterns which, in turn, determine climate patterns over the rest of the globe. The Arctic is already warming faster than the rest of the world; both sea ice and glaciers there are shrinking, while rain and snowfall are likely to increase by 4 to 6 per cent for every degree of warming. Together these developments could make the upper layers of the Arctic seas less salty, possibly altering the thermohaline circulation which drives global ocean circulation and vital currents like the Gulf Stream. Meanwhile, Antarctic ice-shelves have collapsed in recent years.

Governments and industry alike must act responsibly, implement the Kyoto Protocol to the Convention on Climate Change and related agreements to reduce emissions of the greenhouse gases that cause global warming, and boost their efforts to develop and apply alternative, renewable energy technologies such as wind and solar power.

Fishing pressure

Sea fishing, the Food and Agriculture Organization of the United Nations (FAO) reports, generates approximately 1 per cent of the global economy and, together with related industries, supports the livelihoods of some 200 million people around the world. Yet most major fisheries are already overexploited, and the pressure that fishing exerts on the seas continues to increase.

Overfishing does not only affect the targeted fish stocks, but impacts whole ecosystems. A recent analysis of FAO fisheries data over the past 40 years by Daniel Pauly and his colleagues has revealed the trend of progressively fishing down food chains: when high-value, top predator species have been overfished and depleted, those lower in the chain are targeted. This strategy could bring wholesale changes to marine ecosystems: to take one hypothesis, the southern North Sea could become dominated by jellyfish, rather than commercially exploitable fish, as the top predators.

The oceans are a common heritage of humanity

Ana Carolina V. M. Fernandes/ANT/Still Pictures

Every year some 27 million tonnes of unwanted fish are discarded after being caught – one-third of the total from shrimp fishing alone – and this also contributes to altering the species balance. Overfishing also affects whales, sea turtles and birds, as well as life on the seabed. Every year longlining in the Southern Ocean traps an estimated 100,000 seabirds; some albatross populations have been driven almost to extinction.

The consequences of overfishing, climate change, pollution, habitat degradation and other problems threaten to degrade the oceans irreparably. Yet they are a common heritage of humanity. Marine law may place much of the oceans under national control, but the problems facing the seas are common to us all.

Solving the environmental problems facing the oceans and ensuring sustainable fisheries is one of the greatest challenges facing humankind in the 21st century. No single nation or region can do this alone: it will require comprehensive international cooperation as required by the United Nations Convention on the Law of the Sea.

The United Nations General Assembly recently established a body [UNICPOLOS] to enhance cooperation and coordination amongst United Nations agencies, organizations and treaty organizations involved in oceanic affairs. This is a start, but governments can no longer ignore their responsibilities to protect the oceans. Fundamental action must be taken now. If it is left to future generations, it may be too late ■

Dr. Thilo Bode is International Executive Director of Greenpeace.

No wires attached

MARK HICKEY describes the communications revolution sweeping developed and developing countries and outlines the changes that the power of mobility will bring

An astonishingly rapid global revolution is under way, fundamentally changing the way people live. Wireless service is taking hold in developed and developing countries alike, spreading even faster than radio, television and telephones did, and revolutionizing telecommunications. There is a simple secret to its success: wireless means mobility and mobility has the power to change lives.

The power of mobility can be measured in the soaring number of people who already rely on wireless communications. Adopted more rapidly than almost any other 20th-century invention, it now helps an estimated 470 million people worldwide keep in touch and share information. Industry experts predict that within five years the number of worldwide wireless customers will have almost trebled to 1.26 billion. And by 2010, according to the International Telecommunications Union, cell phone users worldwide are expected to outnumber those with traditional phones.

The power of mobility has already transformed lifestyles. The first wireless customers were business people, boosting their productivity by keeping in touch while in transit. Now wireless phones are used as an essential communications tool by businesses and consumers alike, used on roadways and city streets, and in neighbourhoods, shopping malls, urban centres and rural areas all over the world. They appear to know no boundaries, encompassing people of all ages from all walks of life, all over the world. Voice communication dominates the wireless world at present, but data communications are already starting to add significant benefits and will play an increasingly important role in future.

Increasing accessibility

Worldwide changes in wireless regulation have helped make the service more accessible. As regulatory barriers to market entry have fallen, competition has increased, consumer awareness of the power of mobility has grown, and rates have declined. These in turn have increased penetration of the market and stimulated greater use of wireless networks.

Technology has also improved, giving customers better coverage, longer battery life, clearer calls, and smaller, less expensive handsets with enhanced features and functionality. Such developments have both attracted new customers and encouraged existing ones to use their wireless phones more frequently.

Demand, competition, regulatory change and new technology continue to move the wireless industry into a new era of growth and challenge. Over time, industry observers expect customers to move more of their communications to wireless networks, as they cease to distinguish between wireless or wireline services and instead simply reach for whichever device is handy.

Barriers to understanding and sharing are being reduced as nations and individuals grasp the advantages of communicating

Jump start

Most of the world's people, it is estimated, have never placed or received a phone call. By working rapidly to fill that communications void, wireless will be central to the new global telecommunications growth of the future. In 1999, 22 per cent of the net additions to the world's wireless users were in developing countries; by 2005, industry analysts expect, this proportion will have increased to 75 per cent. The capital costs of wireless are less than those of the traditional landline network, and developing countries are seizing the opportunity to use it to build and upgrade existing communications systems; in effect, jump starting into the 21st century. In the process, cultural barriers to understanding and sharing are being reduced, as nations and individuals alike grasp the advantages and reap the rewards of communicating. Mobile technology is moving ahead at break-neck speed. New handsets, new services and new standards are being introduced all the time. And increasing reliance on the Internet – the fastest growing service ever – is opening a new frontier. Until now access to the virtually unlimited information from all over the world that it puts at our fingertips has been restricted to desktop PCs; remote workers, or those without access to a computer, have not been able to access it.

But now new Web-enabled cellular phones are able to retrieve information from the Internet, as well as to send and receive voice messages. News stories, sports results and ▸

stock market quotations can all be accessed by mobile phones, and new services are just around the corner.

These will include on-line banking and travel information and booking, as well as many applications for e-commerce. Business users will be able instantly to access important information held on computer systems back in the office, including office e-mail, and electronic calendar and address book systems. And, of course, there will be a wealth of entertainment information, television listings, film previews and games.

As the evolution of wireless continues, third-generation technology is expected to transmit data much faster than is now possible, enabling mobile phones to receive Internet data, video communications and graphics faster than traditional fixed lines, and even receive television broadcasts.

The start of the new millennium is witnessing a telecommunications world that is very different from even the recent past. Clearly challenges lie ahead. But driven by the power of mobility, the world is going wireless and an ever increasing number of people everywhere are reaping the rewards of communicating in a world without wires ■

Mark Hickey is Human Resources and Regional Services Executive Director of Vodafone.

Now for **vigorous action**

KJELL LARSSON describes an historic meeting of environment ministers to chart a new course for a new millennium

It was a privilege for Sweden to host the first Global Ministerial Environment Forum in Malmö on 29-31 May 2000. This meeting was the culmination of several years of efforts to provide a new departure for UNEP at the threshold of the new millennium. In my judgement, the around 100 environment ministers that attended the Forum managed to do just that. Their massive attendance and active participation was clear evidence of their commitment to play a stronger role in the implementation of the goals and objectives of UNEP as the leading global environmental authority.

With its origins in the Stockholm Conference 28 years ago, UNEP has been an indispensable advocate for the global environment with many great achievements to its credit, notably in international environmental law. Yet, there have been uncertainties as to its role and identity, particularly in the years immediately following the Rio Earth Summit in 1992. Starting with the Nairobi Declaration in 1997 and underpinned by the farsighted leadership of the Executive Director, Dr. Klaus Töpfer, this unfortunate state of affairs has been gradually dispelled. I am most pleased that the Forum so convincingly confirmed these encouraging developments. This was urgently needed in view of the extraordinary challenges confronting us.

I was attracted by the innovative format of roundtable informal ministerial consultations, exclusive to heads of delegations. This presented an opportunity to pursue an unusually straightforward and productive debate for more than ten hours in total. Through live broadcast, delegates, non-governmental organizations (NGOs) and media could follow the dialogues on wide screen next door. UNEP's experiment in Malmö with such innovative procedures clearly has a precedent-setting potential in our common quest to improve global decision-making.

The potential of the new economy must be vigorously pursued

The agenda reflected the key role of the Governing Council in its new format to make more room for strategic discussions and to review important and emerging policy issues. Three themes were considered in the consultations, each with an introduction by eminent key-note speakers. The point of departure for the first theme – 'Major environmental challenges in the new century' – was UNEP's *GEO 2000* report with its solid and deeply troubling assessment of the state of the global environment. I was struck by the unity with which ministers declared that both the problems and their solutions are well known – it is more vigorous action that is now needed.

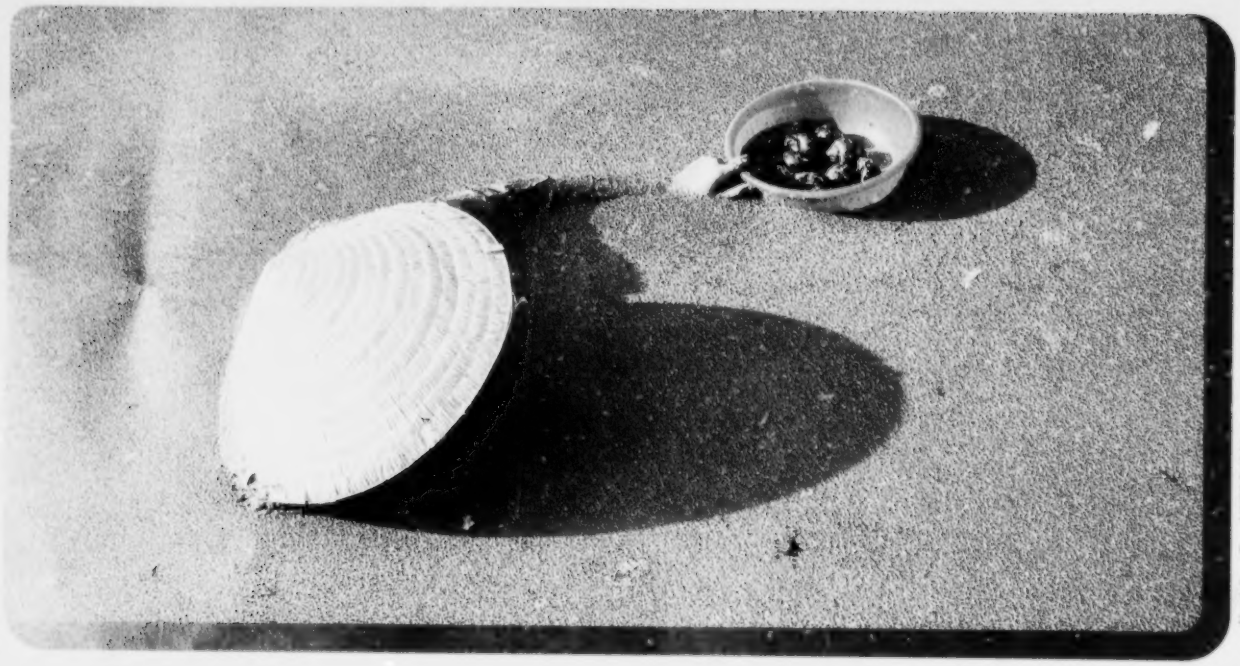
Private sector

Secondly, we had a most refreshing discussion on 'Private sector and the environment – preparing for the 21st century'. With the emergence of the private sector as a driving force in the globalization process, significantly impacting environmental trends, corporate competition and profitability must be reconciled with environmental objectives. New types of relationship between the private and the public sectors need to be developed. On the one hand, the private sector was urged to engender a new culture of environmental accountability through the application of a series of key principles for environmental management, such as the polluter pays principle, environmental performance indicators and the precautionary approach. On the other, the public sector must provide an enabling environment while at the same time enhancing its institutional and regulatory capabilities to protect the interests of the environment and coming generations. Ministers emphasized that the enormous potential of the new economy needs to be more vigorously pursued.

Promoting partnerships

More specifically, public/private partnerships for achieving sustainable development, alleviating poverty and creating employment were suggested. For my part, I proposed that such a partnership could be facilitated by UNEP in co operation with bilateral donors as well as with relevant actors in the business community in order to promote the transfer of clean technology to developing countries, and to stimulate research and development in pursuit of technological innovation relevant to needs in these countries.

In our third ministerial dialogue, the subject was 'The role and responsibility of civil society for the environment in a globalized world'. Here, some differences of opinion surfaced. Whereas some saw a conflict between NGOs and the state, others emphasized that the current level of participation of civil society in decision-making at the national level ▸



Daniel Sone Tranel/ALPS/Still Pictures

and in the activities of UNEP is inadequate. Agreement was reached on several constructive points, including the need for freedom of access to environmental information and justice. Ministers also underlined that special attention must be paid to threats to cultural diversity and traditional knowledge which may be posed by globalization.

Forceful message

The Malmö Declaration was prepared in a parallel process, linked to the three ministerial dialogues. This is a short document which sends a forceful message to the Millennium Assembly and to the 2002 review of Agenda 21. I would like to pay tribute to delegations for the resolve they showed in producing a document of this political importance and complexity in the extremely short time available. As the full text of the Declaration is reproduced over the next pages, I will limit myself to three observations.

The most important message of the Malmö Declaration is that the growing trends of environmental degradation that threaten the sustainability of our planet must be arrested and reversed in a spirit of international partnership and solidarity. With a sincerity that is not often found in this type of document, ministers and heads of delegations note that there is an alarming discrepancy between commitments and action. Agreed goals and targets must be implemented without delay, with mechanisms in place to ensure compliance, enforcement and liability. The Declaration recognizes that 'the mobilization of domestic and international resources, including development assistance, far beyond current levels is vital to the success of this endeavour.'

I also welcome that the Declaration so clearly addresses the need for new partnerships in a globalizing world, particularly the public/private relationship. Putting the unprecedented financial and human resources that are now available in the new economy in the service of sustainable development will be another key to success. The Global Compact established by the Secretary-General with the private sector is an encouraging initiative. The Declaration asks UNEP to enhance its engagement in this important area.

The task ahead

Finally, I am gratified that the Declaration makes such a substantive input to the preparations for the 2002 review of the United Nations Conference on Environment and Development. It captures the task ahead in a nutshell. In the words of the Declaration, the 2002 summit should address 'the pervasive effects of the burden of poverty on a large proportion of the Earth's inhabitants, counterposed against excessive and wasteful consumption and inefficient resource use that perpetuate the vicious circle of environmental degradation and increasing poverty'. Governments are requested urgently to pursue the ratification of all environmental conventions and protocols. Considerable efforts will also have to be devoted in the preparatory process to the justified call for a greatly strengthened institutional structure for international environmental governance, with an increased role for UNEP. The assessment called for in this connection should be undertaken by UNEP at the earliest possible moment.

With the adoption of this Ministerial Declaration, I feel that a significant step forward has been taken in addressing the critical issues confronting us. As is so strongly underlined in the Declaration itself, the success of this endeavour can only be judged on the merits of our own actions at all levels ■

Kjell Larsson is Minister for the Environment of Sweden.

We, Ministers of Environment and heads of delegation meeting in Malmö, Sweden from 29 to 31 May 2000, on the occasion of the first Global Ministerial Environment Forum, held in pursuance of United Nations General Assembly resolution 53/242 of 28 July 1999 to enable the world's environment ministers to gather to review important and emerging environmental issues and to chart the course for the future:

Recalling the Stockholm Declaration of the United Nations Conference on the Human Environment (1) and the Rio Declaration of the United Nations Conference on Environment and Development (2), the Declaration of Barbados on the Sustainable Development of Small Island Developing States (3) as well as the Nairobi Declaration on the Role and Mandate of the United Nations Environment Programme (4),

Deeply concerned that, despite the many successful and continuing efforts of the international community since the Stockholm Conference, and some progress having been achieved, the environment and the natural resource base that supports life on Earth continue to deteriorate at an alarming rate,

Reaffirming the importance of the speedy implementation of the political and legal commitments entered into by the international community, in particular at the Rio Conference,

Convinced that urgent and renewed efforts are required to be undertaken by all countries in a spirit of international solidarity, and recognizing, *inter alia*, the principle of common but differentiated responsibility as contained in the Rio Principles to manage the environment so as to promote sustainable development for the benefit of present and future generations,

Conscious that the root causes of global environmental degradation are embedded in social and economic problems such as pervasive poverty, unsustainable production and consumption patterns, inequity in distribution of wealth, and the debt burden,

Also conscious that success in combating environmental degradation is dependent on the full participation of all actors in society, an aware and educated population, respect for ethical and spiritual values and cultural diversity, and protection of indigenous knowledge,

Aware that the 10-year review and appraisal of the implementation of Agenda 21 to be conducted in 2002 will provide a further opportunity for the international community to take action to implement its commitments and to strengthen international cooperation urgently required to address the challenges of sustainable development in the twenty-first century,

Convinced that the Millennium Summit of the fifty-fifth session of the United Nations General Assembly provides a unique opportunity to address at the highest level the role of the United Nations in the field of sustainable development, and noting in this regard the proposals of the Secretary-General of the United Nations as contained in his report *We the peoples: the role of the United Nations in the twenty-first century* (5), which will serve as the basis of discussion at the Summit,

Determined to contribute to this historic endeavour from an environmental perspective, and having requested the President of the Governing Council to bring the following matters to the attention of the fifty-fifth session of the General Assembly, the Millennium Assembly,

Declare that:

Major environmental challenges of the twenty-first century

1 The year 2000 marks a defining moment in the efforts of the international community to ensure that the growing trends of environmental degradation that threaten the sustainability of the planet are arrested and reversed. Hence there is an urgent need for reinvigorated international cooperation based on common concerns and a spirit of international partnership and solidarity.

2 There is an alarming discrepancy between commitments and action. Goals and targets agreed by the international community in relation to sustainable development, such as the adoption of national sustainable development strategies and increased support to developing countries, must be implemented in a timely fashion. The mobilization of domestic and international resources, including development assistance, far beyond current levels is vital to the success of this endeavour.

3 The evolving framework of international environmental law and the development of national law provide a sound basis for addressing the major environmental threats of the day. It must be underpinned by a more coherent and coordinated approach among international environmental instruments. We must also recognize the central importance of environmental compliance, enforcement and liability, and promote the observation of the precautionary approach as contained in the Rio Principles (2), and other important policy tools, as well as capacity-building.

4 The *Global Environment Outlook 2000* of the United Nations Environment Programme provides a compelling assessment of the serious nature of the environmental threats faced by the international community. Special attention should be paid to unsustainable consumption patterns among the richer segments in all countries, particularly developed countries. Environmental stewardship ▸

is lagging behind economic and social development, and a rapidly growing population is placing increased pressures on the environment.

5 Environmental threats resulting from the accelerating trends of urbanization and the development of megacities, the tremendous risk of climate change, the freshwater crisis and its consequences for food security and the environment, the unsustainable exploitation and depletion of biological resources, drought and desertification, and uncontrolled deforestation, increasing environmental emergencies, the risk to human health and the environment from hazardous chemicals, and land-based sources of pollution, are all issues that need to be addressed.

6 Opportunities however exist that can redress this situation. Technological innovation and the emergence of new resource-efficient technologies, in which the private sector plays a major role, provide a source of great hope and increased opportunities to avoid the environmentally destructive practices of the past, including through clean technologies.

7 To confront the underlying causes of environmental degradation and poverty, we must integrate environmental considerations in the mainstream of decision-making. We must also intensify our efforts in developing preventive action and a concerted response, including national environmental governance and the international rule of law, awareness-raising and education, and harness the power of information technology to this end. All actors involved must work together in the interest of a sustainable future.

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8 It is necessary that the environmental perspective is taken into account in both the design and the assessment of macro-economic policy-making, as well as practices of government and multilateral lending and credit institutions such as export credit agencies.

9 The trends of globalization in the world economy, with the attendant environmental risks and opportunities, require international institutions to adopt new approaches and to engage the major actors involved in globalization in new ways. We should encourage a balanced and integrated approach to trade and environment policies in pursuit of sustainable development, in accordance with the decision of the Commission on Sustainable Development at its eighth session.

10 The role and responsibility of nations based on the Rio Principles, as well as the role and responsibility of the main actors including Governments, the private sector and civil society, must be emphasized in addressing the environmental challenges of the twenty-first century. Governments are the primary agents in this process, whose actions are vital in implementing United Nations environment-related instruments since Stockholm, institutional capacity-building and strengthened international cooperation.

The private sector and the environment

11 The private sector has emerged as a global actor that has a significant impact on environmental trends through its investment and technology decisions. In this regard, Governments have a crucial role in creating an enabling environment. The institutional and regulatory capacities of Governments to interact with the private sector should be enhanced. A greater commitment by the private sector should be pursued to engender a new culture of environmental accountability through the application of the polluter-pays principle, environmental performance indicators and reporting, and the establishment of a precautionary approach in investment and technology decisions. This approach must be linked to the development of cleaner and more resource-efficient technologies for a life cycle economy and efforts to facilitate the transfer of environmentally sound technologies.

12 The potential of the new economy to contribute to sustainable development should be further pursued, particularly in the areas of information technology, biology and biotechnology. The ethical and social implications must be carefully considered. There must be recognition of the public interest in knowledge related to biodiversity, including the interest of indigenous and local communities. A corporate ethic guided by public interest should be promoted.

13 The Global Compact established by the Secretary-General of the United Nations with the private sector provides an excellent vehicle for the development of a constructive engagement with the private sector. UNEP should continue to enhance its engagement and collaboration with the private sector and consider the relation between foreign direct investment and the environment, with a view to minimizing negative environmental implications.

Civil society and the environment

14 Civil society plays a critically important role in addressing environmental issues. The role, capabilities and involvement of civil society organizations has seen a substantial increase over recent years, which highlights the need for national Governments and for UNEP and international organizations to enhance the engagement of these organizations in their work on environmental matters.

15 Civil society has found new and effective modes of expression of popular sentiments and concerns. It provides a powerful agent for promoting shared environmental purpose and values. Civil society plays an important role in bringing emerging environmental issues to the attention of policy makers, raising public

Sebastian Martin Roumel/ NEP/Still Pictures

awareness, promoting innovative ideas and approaches, and promoting transparency as well as non-corrupt activities in environmental decision-making.

16 The role of civil society at all levels should be strengthened through freedom of access to environmental information to all, broad participation in environmental decision-making, as well as access to justice on environmental issues. Governments should promote conditions to facilitate the ability of all parts of society to have a voice and to play an active role in creating a sustainable future.

17 Science provides the basis for environmental decision-making. There is a need for intensified research, fuller engagement of the scientific community and increased scientific cooperation on emerging environmental issues, as well as improved avenues for communication between the scientific community, decision makers and other stakeholders.

18 We must pay special attention to threats to cultural diversity and traditional knowledge, in particular of indigenous and local communities, which may be posed by globalization. In this context we welcome the proclamation by the United Nations General Assembly of the year 2001 as the International Year of Dialogue among Civilizations.

19 Greater emphasis must be given to the gender perspective in decision-making concerning the management of the environment and natural resources.

20 There is a need for independent and objective media at all levels in enhancing awareness and developing shared environmental values in global society. The media can serve the cause of sustainable development by identifying emerging issues, awareness-raising and promoting appropriate action.

The 2002 review of UNCED

21 The 2002 review of the implementation of the outcome of the United Nations Conference on Environment and Development (UNCED) should be undertaken by an international conference at the summit level. The objective should not be to renegotiate Agenda 21, which remains valid, but to inject a new spirit of cooperation and urgency based on agreed actions in the common quest for sustainable development. In this regard, the ratification of all environmental conventions and protocols, in particular those related to climate, desertification, biosafety and chemicals, should be urgently pursued by Governments.

22 Governments and UNEP have to play a major role in the preparation for the 2002 review of UNCED at the regional and global levels and ensure that the environmental dimension of sustainable development is fully considered on the basis of a broad assessment of the state of the global environment. The preparations for the conference should be accelerated.

23 The 2002 conference should aim at addressing the major challenges to sustainable development, and in particular the pervasive effects of the burden of poverty on a large proportion of the Earth's inhabitants, counterposed against excessive and wasteful consumption and inefficient resource use that perpetuate the vicious circle of environmental degradation and increasing poverty.

24 The 2002 conference should review the requirements for a greatly strengthened institutional structure for international environmental governance based on an assessment of future needs for an institutional architecture that has the capacity to effectively address wide-ranging environmental threats in a globalizing world. UNEP's role in this regard should be strengthened and its financial base broadened and made more predictable.

Conclusion

25 At the dawn of this new century, we have at our disposal the human and material resources to achieve sustainable development, not as an abstract concept but as a concrete reality. The unprecedented developments in production and information technologies, the emergence of a younger generation with a clear sense of optimism, solidarity and values, women increasingly aware and with an enhanced and active role in society – all point to the emergence of a new consciousness. We can decrease poverty by half by 2015 without degrading the environment, we can ensure environmental security through early warning, we can better integrate environmental considerations in economic policy, we can better coordinate legal instruments and we can realize a vision of a world without slums. We commit ourselves to realizing this common vision ■

1. *Report of the United Nations Conference on the Human Environment* (United Nations publication, Sales No. E.73.II.A.14), part one, chap. I.

2. *Report of the United Nations Conference on Environment and Development* (United Nations publication, Sales No. E.93.I.8), vol. I, annex I.

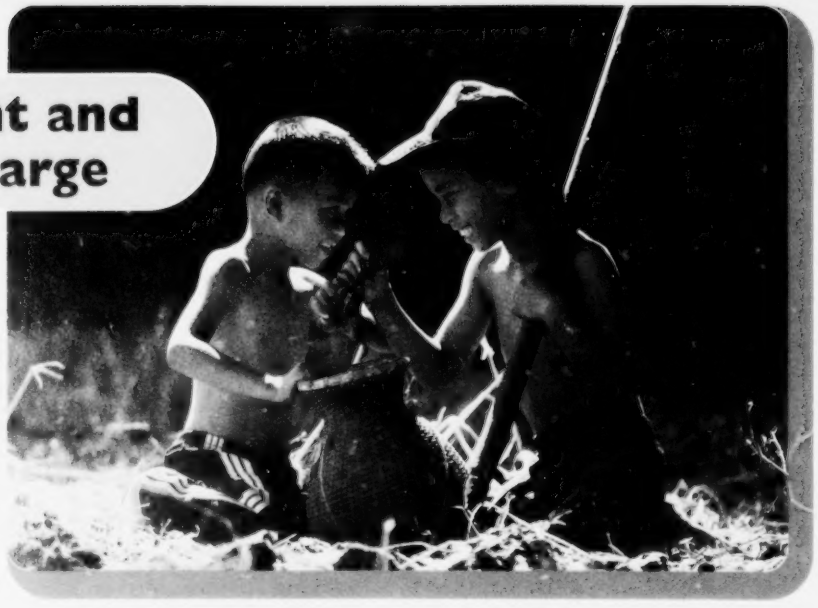
3. Report of the Global Conference on the Sustainable Development of Small Island Developing States (A/CONF.167/9), annex I.

4. Governing Council decision 19/1, annex.

5. A/54/2000.

Bard Basset/ NEP/Still Pictures

Young, impatient and soon to be in charge



Sam Hammond/UNEP/Still Pictures

Natalie Baturina (11) from Russia is concerned about aquatic animals. She regularly conducts surveys to investigate their survival – making clay sculptures of the animals she finds which she gives to friends with notes on the species.

Ashli Fox (12) from the Bahamas has been involved in a project since 1995. She plans to design a comic book to make other children aware of the danger of pollution.

Natalie and Ashli were among the 700 young people from 111 countries who attended the Millennium International Children's Conference on the Environment in Eastbourne, England, 22-24 May 2000. The 10 to 12-year-olds discussed such environmental issues as water, the city environment and 'sharing our planet'.

At the end of the Conference, the children made pledges and issued challenges, and sent representatives to the Global Ministerial Environment Forum in Malmö, Sweden to present the following declaration...

'...We are not yet Ministers and Government officials or experts, but we know a lot about environmental problems, we care for our environment and are pleased that you will listen to us. One day we will be in charge. In the meantime, we are doing our best. We are young, impatient and we are all the time learning, but we have determination and hope.

While many of you here have forgotten how it is to be young and are thinking in short terms, perhaps to win the next elections, we seriously have to think about our future.

At our Millennium Conference, we made friends from all over the world and pledges committing ourselves to doing more for the environment.

As you will hear, our lives depend on more than money and power. We would also like you to use your hearts to share and care.

We also know that we must play our part. We therefore have made the following pledges:

1. *To join other children to make stronger environmental groups, and promote environmental awareness and actions in our communities.*

2. *To have our voice heard by governments and by the United Nations.*

3. *To learn more about water-related issues, such as waterborne diseases, and to save and re-use water.*

4. *To help keep the world clean and rubbish free.*

5. *To ask for better recycling facilities and alternatives to fossil fuels from our governments.*

6. *We will also refuse to use plastic bags, but carry our environment-friendly bags when shopping.*

The children from the 111 countries represented at the Conference have put together some challenges for you. These are the most important ones:

1. *Enforce environmental laws, especially those concerning water and pollution.*

2. *Provide clean water to all within the next ten years.*

3. *Make recycling fun and provide more recycling bins.*

4. *Find environment-friendly alternatives to plastic bags by the year 2004.*

5. *Promote the use of clean energy.*

Before we end and say thank you for listening, we ask you in the future to listen more to your children and grandchildren. Children are not stupid. Remember we are in many ways closer to the ground. We also like to hear from you and learn from you. Please involve us more in your work and please respond to our challenges.'

The Conference, held biennially, was organized by UNEP, Eastbourne Borough Council (EBC), East Sussex County Council (ESCC) and The Millennium Festival Fund.